

To
Chairman of the Scientific Jury
Appointed by order № 15 – 01 – 213 # 1 / 05.04.2022
On Ex. Director of Acibadem City Clinic
UMBAL Tokuda EAD
Dr. Venelina Atanasova

OPINION

by Prof. Dr. Kiril Vassilev Draganov, MD, DSc.
Clinic of Liver-Bile, Pancreatic and General Surgery
Acibadem City Clinic Tokuda University Hospital, Sofia

Subject: Defense of a dissertation for the award of educational and scientific degree 'Doctor'

Field of higher education 7. Healthcare and sports, field 7.1. Medicine

Scientific specialty "General Surgery"

Author: Dr. Evgeni Nedev Vlaev

Form of doctoral studies: independent preparation

Institution: Scientific Council, Acibadem City Clinic Tokuda University Hospital, Sofia

Topic: "Surgical treatment of scoliosis in children - methods for evaluation and analysis of results"

Supervisor: Prof. Dr. Vasil Yablanski, MD, PhD, Acibadem City Clinic Tokuda University Hospital, Sofia

1. General presentation of the procedure and the PhD student

The set of materials on paper and electronic media presented by the PhD student is in full compliance with the requirements of the current regulatory framework in the country, namely - Art. 74, para 1, item 1 of the Higher Education Act, Art. 24, para. 2, para 3, para 6 of the Regulations for application of the Law for development of the academic staff in the Republic of Bulgaria (PP ZRASRB) and art. 23, para 6 of the Regulations for development of the academic staff in ACK UMBAL Tokuda, Sofia .

This set of materials includes the following documents:

- Application to the Director of Acibadem City Clinic Tokuda University Hospital, Sofia for disclosure of the procedure for defense of the dissertation;
- CV in European format with the signature of the PhD student;
- notarized copy of the diploma for higher education;
- orders for enrollment in doctoral studies and for deductions with the right to defense;
- an order for conducting an examination of the individual plan and a respective protocol for passing the doctoral minimum in the specialty;
- order for appointment and minutes of the meeting of the extended scientific college for preliminary discussion of the dissertation and the decisions taken for opening the procedure and for the composition of the scientific jury;
- dissertation work;
- abstract to the dissertation;
- list of scientific publications on the topic of the dissertation;
- copies of scientific publications on the topic of the dissertation;
- list of participations in scientific forums on the topic of the dissertation;
- declaration of originality and authenticity of the attached documents;

Dr. Vlaev has attached 3 (three) full-text publications related to the topic of the dissertation.

Notes and comments on the documents.

The procedure for the defense of the dissertation, as well as the related documents fully meet the requirements of the current regulatory framework in the Republic of Bulgaria.

Brief biographical data

Dr. Evgeni Nedev Vlaev graduated from the Medical University of Trakia University, Stara Zagora in 1995. From 1998 to 2006 Dr. Vlaev was an assistant, senior assistant and mayor assistant at the Department of Anesthesiology, General and Emergency Medicine, University Hospital, Stara Zagora. Since 2006 the doctoral student is part of the team of the Clinic of Orthopedics and Traumatology, ACK UMBAL Tokuda.

The PhD student's aspiration for professional improvement and development is proved by the numerous specializations and courses in the country and in many leading world centers - Germany, Austria, France, Turkey, Russia, Romania, China and others.

On 16.07.2020 Dr. Evgeni Vlaev was enrolled as a PhD student in independent training in the scientific specialty "General Surgery" (order №466 / 16.07.2020 of the Executive Director of "ACK MHAT Tokuda"). After successfully passing the PhD minimum exam and internal defense, he was expelled with the right to defense (order №15-05-26 / 11.02.2022 of the Executive Director of Acibadem City Clinic Tokuda University Hospital).

2. Relevance of the topic

The topic of the dissertation is extremely relevant for Bulgarian medicine in both purely scientific and scientifically applied aspects for a number of reasons.

Surgical correction of scoliosis in childhood is characterized by many challenges - long-term, associated with relatively large blood loss, as well as the risk of serious perioperative complications. As with any surgery, the goal is to achieve good and lasting long-term results. Their registration, in turn, requires the validation of disease-adapted methods for assessing the quality indicators of these results.

The team of the Clinic of Orthopedics and Traumatology, ACK UMBAL Tokuda has accumulated over 10 years of experience in the surgical correction of scoliosis in children. This is a solid foundation on which Dr. Vlaev stands and the main motivation for starting the study.

3. Knowledge of the problem

The literature review is presented in a volume of 22 pages (from page 8 to page 29 including). The PhD student has examined in great details a lot of current information concerning scoliosis in childhood and its surgical treatment.

Logically, the focus of the review is the consideration of different systems and approaches for self-assessment of the outcome of surgery.

The review of the specialized literature ends with conclusions, which is the main motivation of the PhD student to conduct the study.

All this proves a detailed knowledge of the problem by the PhD student.

4. Research methodology

The aim of the study (p. 30) is to explore the possibilities for subjective evaluation of the results after surgical treatment of scoliosis in childhood and to implement it as a modern approach in the development of protocols for clinical evaluation after surgery. To achieve this goal, Dr. Vlaev formulated 6 tasks - specific, precise and clear, without going into unnecessary details on the one hand, and on the other to allow for an in-depth scientific study. The study is retrospective and includes 101 children with scoliotic spinal deformities operated at the PhD student's institution for the period from July 2014 to December 2019. The methods are presented in a volume of 12 pages, richly illustrated with photo documentation from their own archives - proof of personal participation of Dr. Vlaev in the surgery of scoliosis.

5. Characteristics and evaluation of the dissertation and contributions

The dissertation of Dr. Vlaev has a volume of 130 standard pages and is illustrated with 89 figures and 14 tables. The bibliographic reference contains 135 literary sources, of which 11 by Bulgarian and 124 by foreign authors.

The opinion on the literature review, the purpose and the tasks was stated above. Here I will

focus on the results achieved, their presentation and discussion, conclusions and contributions.

Important from a practical point of view are the achieved results presented in the most extensive chapter of the dissertation - descriptively, in graphical and tabular form (pp.42-95).

I appreciate the PhD student's discussion of the results (Chapter Four). To assess the results of surgical treatment of scoliosis, data from two diverse, specific forms of examination were analyzed: objective (clinical and radiological) and subjective assessment of children and their parents for quality of life before and after surgery.

Dr. Evgeni Vlaev formulates 6 conclusions and recommendations, which are based on the overall analysis of the results and are the logical conclusion of the dissertation.

6. Assessment of the publications and personal contribution of the PhD student

A list of three full-text publications related to the topic of the dissertation is presented.

After a detailed acquaintance with the dissertation and related publications, I appreciate the overall study of Dr. Evgeni Nedev Vlaev on methods for evaluating and analyzing the results achieved after surgical treatment of scoliosis in childhood.

The dissertation is sufficiently thorough and the work on it, the results obtained, their analysis, the conclusions made and the contributions prove the personal merits of the PhD student.

Critical remarks and recommendations

I do not think it is right to formulate 'Conclusions and Recommendations' in one chapter of this type of research.

7. Abstract

The abstract to the dissertation of Dr. Evgeni Vlaev meets the requirements in terms of volume and content and gives a clear enough idea of the nature of the work, reflects in sufficient detail the results achieved and formulated conclusions.

CONCLUSION

The dissertation of Dr. Evgeni Nedev Vlaev on "Surgical treatment of scoliosis in children - methods for evaluation and analysis of results" *contains scientific and applied scientific achievements that represent an original contribution to science and meet all the requirements of ZRASRB, The Regulations for implementation of Law on the Development of the Academic Staff of the Republic of Bulgaria and the Regulations of ACK UMBAL Tokuda. The presented materials and dissertation results fully comply with the specific requirements, have an original character and no plagiarism is established.*

The dissertation shows that the doctoral student has in-depth theoretical knowledge and professional skills, demonstrating qualities and skills for independent research.

Due to the above, I confidently give my **positive assessment of the study and propose to the esteemed scientific jury to award the educational and scientific degree "Doctor"** of Dr. Evgeni Nedev Vlaev in a doctoral program in "General Surgery", for which I strongly vote "FOR".

Reviewer:

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(Prof. Dr. Kiril Draganov, MD, PSc.)

May 10, 2022